

Probability Worksheet 4

1. a. $\frac{26}{52} \cdot \frac{25}{51}$ (wo)

$\frac{26}{52} \cdot \frac{26}{52}$ (w)

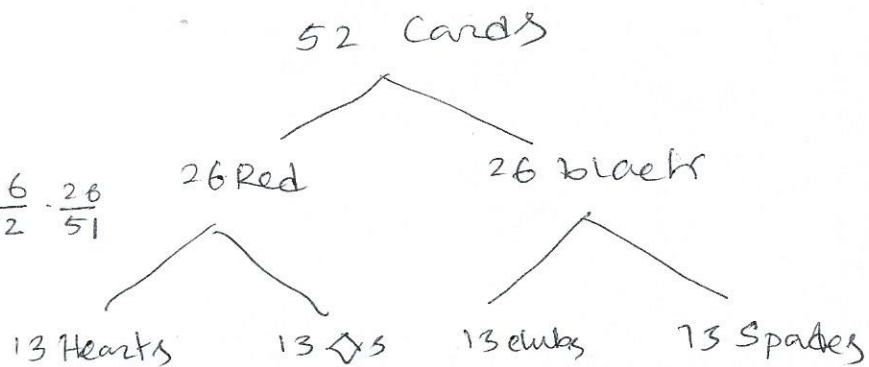
b. $\frac{26}{52} \cdot \frac{25}{51}$ (wo)

$\frac{26}{52} \cdot \frac{26}{52}$ (w)

c.

c. $\frac{26}{52} \cdot \frac{26}{51} \cdot (\text{wo}) + \frac{26}{52} \cdot \frac{26}{51}$

$\frac{26}{52} \cdot \frac{26}{52}$ (w)



d. $\frac{13}{52} \cdot \frac{12}{51}$ (wo)

 $P(HH)$

$\frac{13}{52} \cdot \frac{13}{52}$ (w)

 $P(HH)$

e. $\frac{4}{52} \cdot \frac{3}{51}$ (wo)

 $P(2Q)$

$\frac{4}{52} \cdot \frac{4}{52}$ (w)

 $P(2Q)$ ~~g.~~

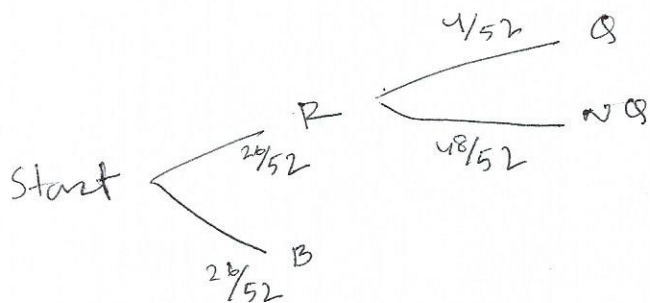
$$f. P(QS) = \frac{12}{52} \cdot \frac{11}{52} \quad (\text{w.o})$$

$$\frac{12}{52} \cdot \frac{12}{52} \quad (\text{w})$$

$$g. P(Nf) = \frac{40}{52} \cdot \frac{39}{51} \quad (\text{w.o})$$

$$\frac{40}{52} \cdot \frac{40}{52} \quad (\text{w})$$

$$P(R, G) = \frac{26}{52} \cdot \frac{4}{52}$$



$$P(R, \text{not } G) = \frac{26}{52} \cdot \frac{48}{52}$$

With replacement

w/o replacement

* or means addition

* And means multiplication.

$$P(\text{Black or Red}) = P(\text{Black}) + P(\text{Red})$$

$$\begin{aligned}
 c) P(RB \text{ or } BR) &= P(RB) + P(BR) \\
 &= \frac{26}{52} \cdot \frac{26}{51} + \frac{26}{52} \cdot \frac{26}{51} .
 \end{aligned}$$

$$4. a. \text{ ~~320~~ } P(R) = \frac{320}{671} .$$

$$b. P(\text{Not favor}) = \frac{340}{671} .$$

$$c. P(D \text{ or } I) = \frac{271}{671} + \frac{80}{671}$$

$$d. P(D \text{ and favor}) = \frac{161}{671} .$$

$$e. P(F | R) = \frac{130}{320} = \frac{130}{320}$$

$$f. P(I | NF) = \frac{40}{340}$$

$$P(R | F) = \frac{130}{331}$$

